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■

ORGANIC CHEMICALS MANUFACTURING POINT SOURCE CATEGORY

Effluent Guidelines and Standards and Proposed Application to Pretreatment Standards

Title 40—Protection of the Environment

CHAPTER I—ENVIRONMENTAL PROTECTION AGENCY

SUBCHAPTER N—EFFLUENT GUIDELINES AND STANDARDS

PART 414—ORGANIC CHEMICALS MANUFACTURING POINT SOURCE CATEGORY

On December 17, 1973 notice was published in the FEDERAL REGISTER (38 FR 34708) that the Environmental Protection Agency (EPA or Agency) was proposing effluent, limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources within the nonaqueous processes subcategory, processes with process water contact as steam diluent or absorbent subcategory, and aqueous liquid phase reaction systems subcategory of the organic chemicals manufacturing category of point sources.

The purpose of this notice is to establish final effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources in the organic chemicals manufacturing category of point sources, by amending 40 CFR Chapter I, Subchapter N, to add a new Part 416. This final rulemaking is promulgated pursuant to sections 301, 304 (b) and (c), 306 (b) and (c), 307(c) and 316(b) of the Federal Water Pollution Control Act, as amended, (the Act); 33 U.S.C. 1251, 1311, 1314 (b) and (c), 1316 (b) and (c), 1317(c) and 1326(c); 86 Stat. 816 et seq.; Pub. L. 92-500.

In addition, the EPA is simultaneously proposing a separate provision which appears in the proposed rules section of the FEDERAL REGISTER, stating the application of the limitations and standards set forth below to users of publicly owned treatment works which are subject to pretreatment standards under section 307(b) of the Act. The basis of that proposed regulation is set forth in the associated notice of proposed rulemaking.

The legal basis, methodology and factual conclusions which support promulgation of this regulation were set forth in substantial detail in the notice of public review procedures published August 6, 1973 (38 FR 21202) and in the notice of proposed rulemaking for the nonaqueous processes subcategory, processes with process water contact as steam diluent or absorbent subcategory and aqueous liquid phase reaction systems subcategory. In addition, the regulations as proposed were supported by two other documents: (1) the document entitled "Development Document for Proposed Effluent Limitations Guidelines and New Source Pretreatment Standards for the Major Organic Products Segment of the Organic Chemicals Manufacturing Point Source Category" (December 1973) and (2) the document entitled "Economic Analysis of Proposed Effluent Guidelines—Organic Chemicals Industry," (August 1973). Both of these documents were made available to the public and circulated to interested persons at approximately the time of publication of the notice of proposed rulemaking.

Interested persons were invited to participate in the rulemaking by submitting written comments within 30 days from the date of publication. Prior public participation in the form of solicited comments and responses from the States, Federal agencies, and other interested parties were described in the preamble to the proposed regulation. The EPA has considered carefully all of the comments received and a discussion of these comments with the Agency's response thereto follows in this document.

A—SUMMARY OF MAJOR COMMENTS

The following responded to the request for written comments which was contained in the preamble to the proposed regulations: Dow Chemical Company; U.S. Industrial Chemical Company; Monsanto Company; Union Carbide Corporation; American Institute of Chemical Engineers, Charleston West Virginia Section, and South Texas Section; Eastman Kodak Company; Exxon Chemical Company U.S.A.; Manufacturing Chemists Association, Nipro, Inc.; Synthetic Organic Chemical Manufacturing Association; UOP Process Company; Diamond Chamrock Chemical Company; Gulf Oil Corporation; Koppers Company; Nalco Inc.; B. F. Goodrich Chemical Company; Hercules, Inc; Shell Oil Company; Olin Corporation; E. I. duPont de Nemours and Company; Campaign Clean Water Inc; State of Michigan; and American Cyanamid Company. The following is a summary of the significant comments and the Agency's response to those comments.

(1) Several commenters recommended that the effluent limitations guidelines be expressed as a range of values with allowance for variations.

The organic chemicals manufacturing industry has been categorized and subcategorized in such a manner that the subject range of values would not be appropriate.

In total, four broad process oriented subcategories have been established for the organic chemicals industry for which over 260 known product-process segments have been classified. Forty of the more significant of these segments are covered by the Phase I effluent limitations guidelines with seven different sets of values. Phase II will cover fifty additional segments with thirteen different sets of limitations guidelines.

In establishing the various segments and sub-segments mentioned above and the associated effluent limitations guidelines, factors such as process, raw waste load, size, location, age and variability of waste treatment effectiveness were considered.

In addition, the industry may, in the case of the 1977 requirements, submit proper evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) requesting that the requirements be adjusted on the basis that factors relating to the equipment of the facilities involved, the processes to be applied or other such factors related to such discharger were not given adequate consideration in the regulations and would adversely affect the ability of the particular facility to meet the established effluent limitations.

(2) Several commenters believe that the "matrix" approach as recommended by the Effluent Standards and Water Quality Information Advisory Committee (E.S.W.Q.I.A.C.) should be considered by EPA as an alternate method for establishing effluent limitation guidelines.

The committee's proposal is under evaluation as a contribution toward refinements on guidelines for some industries. The committee has indicated that their proposed methodology could not be developed in sufficient time to be available for the current phase of guidelines promulgation, which is proceeding according to a court-ordered schedule. Its present state of development does not provide sufficient justification for the Agency's delaying issuance of any standard. Currently available evidence does not establish that the alternative approach suggested by E.S.W.Q.I.A.C. would be preferable to the approach set forth herein.

(3) Comments have been received which claim that the proposed regulations (40 CFR Part 414) are inadequate for application in NPDES permits because:

(a) Many product-process segments in complex plants are not covered under 40 CFR Part 414.

(b) Nonprocess waste water sources from utilities, labs, terminals, runoff and other nonprocess sources within plants are not covered in 40 CFR Part 414.

The regulations set forth below establish limitations only for process waste water pollutants. In some cases, discharges of nonprocess wastewater pollutants will constitute significant flows in particular facilities. However, the quantity of such pollutants discharged varies widely from facility to facility. Moreover, the quantity does not appear to be correlated with production. Effluent limitations for nonprocess wastewater pollutants should be established in permit issuance proceedings under section 402 of the Act.

(4) Most comments expressed general agreement that the proposed industry categorization is technically reasonable. However, it was suggested that additional subcategories be added in order to reduce the range or spread in the raw waste load data within each major subcategory.

Process raw waste load data for product-process segments have been reevaluated as a result of technical information and comments submitted to EPA. Appropriate modifications have been implemented by the reassignment of these segments within subcategories A, B, and C. Two additional subgroups have been developed for Subcategory C on the basis of BOD5 raw waste load variations. Raw waste load values are also based upon the arithmetic mean for each subcategory group.

(5) Several comments concerning the allowance for variability for major parameters claimed that the variability factors for the maximum daily limitations and the maximum 30 day average limitations which are based upon the 90:50 ratio of probability are inadequate since the industry would be out of compliance 10 percent of the time (greater than 1 month in a year).

The factors contributing to variability in waste water parameters have been reevaluated and established at a level that will minimize the probability that a well operated and designated waste treatment plant will exceed the July 1, 1977 effluent standard.

(6) Several commenters recommended that Subcategory D proposed regulations for batch organic dyes and pigments be deleted from 40 CFR Part 414 and reproposed under Phase II.

Due to the limited data base in Phase I for Subcategory D segments of the organic chemicals industry and the expanded coverage of data in the Phase II study, this recommendation was adopted by EPA.

(7) Many commenters agreed with the waste treatment models for BPCTCA, BATEA, and New Sources (BADCT) technologies, although strong objection was expressed concerning the COD parameter limitations for New Sources (BADCT).

Regulations for BPCTCA and BADCT technologies will limit BOD5 as the controlling oxygen demand parameter. Treatment models for these technologies are based upon biological systems and are designed to reduce BOD5. The exact quantity of COD removed in these processes is highly variable as to the specific mix of raw waste for chemical plants. COD guidelines values are provided in the Development Document to approximately determine the COD effluent loading where such limits are appropriate due to water quality considerations or other factors.

(8) It was recommended by several commenters that limitations for phenols be required on a product-process basis rather than for all segments within subcategories.

Further study indicated that phenols are a pollutant of concern only in three product-process segments. Accordingly, effluent limitations for phenols are specified for the following product-process segments: cumene process, bisphenol A and p-cresol manufacturing.

(9) Some comments indicated that the BPCTCA should limit the COD parameter as well as BOD5 since many waste products are inhibitory to biological treatment.

It is not possible to equitably establish COD limitations that are uniformly applicable within this category. The Development Document includes data which will be useful in establishing COD limitations for plants where the BOD5 limitations are inappropriate and where COD limitations are determined to be applicable.

(10) Some comments claimed that reduction factors for BPCTCA are unrealistically high for certain subgroups.

Average historical performance of exemplary biological systems currently in operation where observed. Achievable BOD5 reductions for these exemplary systems range from 83 to 99+ percent with an average of 93 percent BOD5 reduction. COD reduction ranges from 63 to 96 percent (average of 74 percent COD).

Reduction factors applicable to BPC TCA raw waste loads were limited so that the most stringent level of control represents a treatment achieving an effluent concentration of 20 mg/liter. In many cases, a lesser degree of removal than the average performance of 93 percent was required. However, for Subcategories C2, C3, and C4, higher reduction factors were considered applicable due to the extremely high raw waste loads and concentrations of BOD5. This is justified since the percentage of BOD5 removal by biological systems generally increases with increased concentrations of BOD5 in the influent. Various in-process controls are also available for reducing the overall waste load.

B—Revision of the Proposed Regulation Prior to Promulgation

As a result of public comment and continuing review and evaluation of the proposed regulation by EPA, the following changes have been made in the regulation.

The following modifications to the product-process subcategorization have been implemented as a result of specific comments and additional information and for the purpose of reducing the spread of BOD5 raw waste load data within each subcategory group:

(1) Raw waste loads were calculated as arithmetic mean values for each subgroup (median values were calculated in the proposed limitations).

(2) Ethyl benzene product-processes were reclassified in Subcategory B1.

(3) Subcategory B product-processes were reclassified among two subgroups: B1 and B2.

(4) Two additional subgroups were established for Subcategory C.

(5) Subcategory D (azo dyes and components) was deleted from Phase I and included under Phase II proposed regulations.

The COD pollutant parameter has been deleted as a control pollutant parameter for New Sources (BADCT). COD reference values are provided in the Development Document for BPCTCA and BADCT technologies. COD and BOD5 limits are established for BATEA since the technology involves carbon adsorption and biological treatment.

Effluent limitations were calculated for each subcategory group and for each technology on the basis of reduction factors applied to the mean subcategory raw waste load as follows:

Subcategory

Group	BOD5			COD—
	BPCTCA	[1] BADCT	[1] BATEA	BATEA
A	[2] 0.90	0.17	[3] 0.50	[4] 0.88
B1	[2] .925	.17	[3] .50	.92
B2	[2] .88	.17	[3] .50	[4] .86
C1	[2] .89	.17	[3] .50	.92
C2	.96	.17	[3] .66	.92
C3	.99	.17	.90	.92
C4	.99	.17	.70	.92

[1] The number given in these columns represent the pollutant removal from BPCTCA treatment effluent.
[2] Limited by minimum concentration of 20 mg/l.
[3] Limited by minimum concentration of 10 mg/l.
[4] Limited by minimum concentration of 50 mg/l.

For BPCTCA, the average performance of exemplary end-of-process biological systems is 93 percent BOD5 and 74 percent COD reduction. Factors for BOD5 reduction in excess of the 93 percent average represent either greater than exemplary performance or in-process reductions of raw waste loads. Reduction factors were limited by a minimum BOD5 effluent concentration of 20 mg/liter BOD5 for BPCTCA and 10 mg/liter BOD5 for BATEA, COD reduction factors were also limited by a minimum concentration of 50 mg/liter for BATEA.

Variability factors have been modified to represent the 99/50 ratio of probability of occurrence for BPCTCA and BADCT. The following factors are applicable to each average effluent limitation as the basis for determining the daily maximum and maximum 30 day average:

	BPCTCA and BADCT—BOD5	BATEA	
		BOD5	COD
Daily maximum	4.5	3.0	2.5
Maximum 30-day average	2.0	1.7	1.8

Variability factors for BATEA are also indicated in the above table. These factors were based upon engineering estimates of the variability associated with the 99/50 ratio of probability of occurrence for the BATEA model system.

Effluent limitations for phenols were deleted as a general pollutant parameter (applicable to all subcategories) and established for those product-process segments with significant phenolic raw waste load concentrations such as for the cumene process, bisphenol A, and p-cresols manufacturing. In other product-process segments, phenols are not associated with the process itself and do not appear in significant quantities in the effluent, although traces may be detected.

C—Economic Impact

The changes that were made to the proposed regulations for the organic chemicals manufacturing category do not substantially affect the initial economic analysis. The changes detailed above concern new sources and reflect a reevaluation of the efficiency of various treatment systems. These revisions, however,

do not affect the conclusions of the economic impact study.

D—Cost-Benefit Analysis

The detrimental effects of the constituents of waste waters now discharged by point sources within the Major Organic Product segment of the Organic Chemical Manufacturing point source category are discussed in Section VI of the report entitled "Development Document for Effluent Limitations Guidelines for the Major Organic Products Segment of the Organic Chemicals Manufacturing Point Source Category" (December 1974). It is not feasible to quantify in economic terms, particularly on a national basis, the costs resulting from the discharge of these pollutants to our Nation's water ways. Nevertheless, as indicated in Section VI, the pollutants discharged have substantial and damaging impacts on the quality of water and therefore on its capacity to support healthy populations of wildlife, fish and other aquatic wildlife and on its suitability for industrial, recreational and drinking water supply uses.

The total cost of implementing the effluent limitations guidelines includes the direct capital and operating costs of the pollution control technology employed to achieve compliance and the indirect economic and environmental costs identified in section VIII and in the supplementary report entitled "Economic Analysis of Proposed Effluent Guidelines Organic Chemicals Industry," (August 1973). Implementing the effluent limitations guidelines will substantially reduce the environmental harm which would otherwise be attributable to the continued discharge of polluted waste waters from existing and newly constructed plants in the organic chemicals manufacturing industry. The Agency believes that the benefits of thus reducing the pollutants discharged justify the associated costs which, though substantial in absolute terms, represent a relatively small percentage of the total capital investment in the industry.

E—Solid Waste Control

Solid waste control must be considered. The waterborne wastes from the plastics and synthetics industry may contain a considerable volume of metals in various forms as a part of the suspended solids pollutant. Best practicable control technology and best available control technology, as they are known today, require disposal of the pollutants removed from waste waters in this industry in the form of solid wastes and liquid concentrates. In some cases these are nonhazardous substances requiring only minimal custodial care. However, some constituents may be hazardous and may require special consideration. In order to ensure long term protection of the environment from these hazardous or harmful constituents, special consideration of disposal sites must be made. All landfill sites where such hazardous wastes are disposed should be selected so as to prevent horizontal and vertical migration of these contaminants to ground or surface waters. In cases where geologic conditions may not reasonably ensure this, adequate precautions (e.g., impervious liners) should be taken to ensure long term protection to the environment from hazardous materials. Where appropriate the location of solid hazardous materials disposal sites should be permanently recorded in the appropriate office of the legal jurisdiction in which the site is located.

F—Publication of Information on Processes, Procedures, or Operating Methods Which Result in the Elimination or Reduction of the Discharge of Pollutants

In conformance with the requirements of section 304(c), a manual entitled, "Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the Major Organic Chemicals Products Segment of the Organic Chemicals Manufacturing Point Source Category," has been published and is available for purchase from the Government Printing Office, Washington, D.C. 20401 for a nominal fee.

G—Final Rulemaking

In consideration of the foregoing, 40 CFR Chapter I, Subchapter N is hereby amended by adding a new Part 414, Organic Chemicals Manufacturing Point Source Category, to read as set forth below. An order of the Federal District Court for the District of Columbia entered in NRDC v. Train (Civ. No. 1609–73) on November 26, 1973, required that the Administrator sign final effluent limitations guidelines for this industry category by March 22, 1974. That order was subsequently modified on March 14, 1974, and the date for signing extended until April 15, 1974. Thereafter, on March 15, 1974, the District Court ordered that the effective date for effluent limitations guidelines established by its November 26 order remain applicable and not be affected by the extension in the publication date. The effective date for effluent limitations guidelines for this industry established by the Court's November 26 order is May 13, 1974. Accordingly, good cause is found for the final regulation promulgated as set forth below to be effective on May 13, 1974.

Dated: April 17, 1974.

John Quarles,
Acting Administrator.

Subpart A—Nonaqueous Processes Subcategory

Sec.
414.10 Applicability; description of the nonaqueous processes subcategory.
414.11 Specialized definitions.
414.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
414.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
414.14 [Reserved]
414.15 Standards of performance for new sources.
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Subpart B—Processes With Process Water Contact as Steam Diluent or Absorbent

Sec.
414.20 Applicability; description of the processes with process water contact as steam diluent or absorbent subcategory.
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414.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
414.23 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
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Subpart C—Aqueous Liquid Phase Reaction Systems

414.30 Applicability; description of the aqueous liquid phase reaction systems subcategory.
414.31 Specialized definitions.
414.32 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.
414.33 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.
414.34 [Reserved]
414.35 Standards of performance for new sources.
414.36 Pretreatment standards for new sources.

Authority: Secs. 301, 304(b) and (c), 306 (b) and (c), 307(C), 316(b), Federal Water Pollution Control Act, as amended; 33 U.S.C. 1251, 1311, 1314(b) and (c), 1316(b) and (c), 1317(c), 1326(c); 86 Stat. 816 et seq.; Pub. L. 92–500.

Subpart A—Nonaqueous Processes Subcategory

§ 414.10 Applicability; description of the nonaqueous processes subcategory.

The provisions of this subpart are applicable to discharges of process waste water resulting from the manufacture of the following products:

Products	*Process descriptions*
BTX aromatics	Hydrotreatment of pyrolysis gasoline.
BTX aromatics	Solvent extraction from reformate.
Cyclohexane	Hydrogenation of benzene.
Vinyl chloride	Addition of hydrochloric acid to acetylene.

§ 414.11 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this Chapter shall apply to this subpart.

§ 414.12 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account

all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations. The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD5	0.045	0.02
TSS	.067	.03
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
BOD5	0.045	0.02
TSS	.067	.03
pH	Within the range 6.0 to 9.0.	

§ 414.13 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
COD	0.062	0.045
BOD5	.015	.0085
TSS	.022	.013
pH	Within the range 6.0 to 9.0.	
	English units (pound per 1,000 lb of product)	
COD	0.062	0.045
BOD5	.015	.0085
TSS	.022	.013
pH	Within the range 6.0 to 9.0.	

§ 414.14 [Reserved]

§ 414.15 Standards of performance for new sources.

The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this section, which may be discharged by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD5	0.037	0.017
TSS	.034	.015
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
BOD5	0.037	0.017
TSS	.034	.015
pH	Within the range 6.0 to 9.0.	

§ 414.16 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the nonaqueous processes subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this Chapter except that, for the purpose of this section, § 128.133 of this Chapter shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 414.15; *Provided*, That, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

Subpart B—Processes With Process Water Contact as Steam Diluent or Absorbent Subcategory

§ 414.20 Applicability; description of the processes with process water contact as steam diluent or absorbent subcategory.

The provisions of this subpart are applicable to discharges of process wastewater resulting from the manufacture of the following products:

B1 products	*B1 process descriptions*
Acetone	Dehydrogenation of isopropanol.
Butadiene	Coproduct of ethylene
Ethyl benzene	Alkylation of benzene with ethylene.
Ethylene and propylene	Pyrolysis of naphtha or liquid petroleum gas.
Ethylene dichloride	Direct chlorination of ethylene.
Ethylene oxide	Catalytic oxidation of ethylene.
Formaldehyde	Oxidation of methanol.
Methanol	Steam reforming of natural gas.
Methyl amines	Addition of ammonia to methane.
Vinyl acetate	Synthesis of ethylene and acetic acid.
Vinyl chloride	Cracking of ethylene dichloride.
B2 products	*B2 process descriptions*
Acetaldehyde	Dehydrogenation of ethanol.
Acetylene	Partial oxidation of methane.
Butadiene	Dehydrogenation of n-butane.
Butadiene	Oxidative-dehydrogenation of n-butane.
Styrene	Dehydrogenation of ethyl benzene.

§ 414.21 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in Part 401 of this Chapter shall apply to this subpart.

§ 414.22 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent levels established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested

person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of acetone, butadiene (co-product of ethylene), ethyl benezene, ethylene and propylene, ethylene dichloride, ethylene oxide, formaldehyde, methanol, methyl amines, vinyl acetate, or vinyl chloride (cracking of ethylene dichloride) by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BODδ	0.13	0.058
TSS	.20	.088
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
BODδ	0.13	0.058
TSS	.20	.088
pH	Within the range 6.0 to 9.0.	

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of acetaldehyde (dehydrogenation of ethanol), acetylene (partial oxidation of methane), butadiene (dehydrogenation of n-butane), butadiene (oxidative-dehydrogenation of n-butane), or styrene by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BODδ	0.95	0.42
TSS	1.42	.64
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
BODδ	0.95	0.42
TSS	1.42	.64
pH	Within the range 6.0 to 9.0.	

§ 414.23 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of acetone, butadiene (co-product of ethylene), ethyl benzene, ethylene and propylene, ethylene dichloride, ethylene oxide, formaldehyde, methanol, methyl amines, vinyl acetate, or vinyl chloride (cracking of ethylene dichloride) by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
COD	0.80	0.58
BODδ	.044	.025
TSS	.066	.040
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
COD	0.80	0.58
BODδ	.044	.025
TSS	.066	.040
pH	Within the range 6.0 to 9.0.	

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of acetaldehyde (dehydrogenation of ethanol), acetylene (partial oxidation of methane) butadiene (dehydrogenation of n-butane), butadiene (oxidative-dehydrogenation of n-butane) or styrene by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
COD	1.32	0.95
BODδ	.32	.18
TSS	.48	.29
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
COD	1.32	0.95
BODδ	.32	.18
TSS	.48	.29
pH	Within the range 6.0 to 9.0.	

§ 414.24 [Reserved]

§ 414.25 Standards of performance for new sources.

(a) The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of acetone, butadiene (co-product of ethylene), ethyl benzene, ethylene and propylene, ethylene dichloride, ethylene oxide, formaldehyde, mathanol, methyl amines, vinyl acetate, or vinyl chloride (cracking of ethylene dichloride) by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BODδ	0.11	0.048
TSS	.10	.044
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
BODδ	0.11	0.048
TSS	.10	.044
pH	Within the range 6.0 to 9.0.	

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of acetaldehyde (dehydrogenation of ethanol), acetylene (partial oxidation of methane), butadiene (dehydrogenation of n-butane), butadiene (oxidative-dehydrogenation of n-butane) or styrene by a new source subject to the provisions of this subpart.

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg product)	
BODδ	0.76	0.34
TSS	.72	.32
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
BODδ	0.76	0.34
TSS	.72	.32
pH	Within the range 6.0 to 9.0.	

§ 414.26 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the processes with process water contact as stream diluent or absorbent subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this Chapter except that, for the purpose of this section, § 128.133 of this Chapter shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 414.25; *Provided*, That, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

Subpart C—Aqueous Liquid Phase Reaction Systems Subcategory

§ 414.30 Applicability; description of the aqueous liquid phase reaction systems subcategory.

The provisions of this subpart are applicable to discharges of process waste water resulting from the manufacture of the following products:

C1 products	*C1 process descriptions*
Acetic acid	Oxidation of acetaldehyde.
Acrylic acid	Synthesis with carbon monoxide and acetylene.
Coal tar	Distillation of coal tar.
Ethylene glycol	Hydrogenation of ethylene oxide.
Terephthalic acid	Catalytic oxidation of p-xylene.
Terephthalic acid (polymer grade).	Purification of crude terephthalic acid.
C2 products	*C2 process descriptions*
Acetaldehyde	Oxidation of ethylene with oxygen.
Caprolactam	Oxidation of cyclohexane.
Coal tar	Pitch forming.
Oxo chemicals	Carbonylation and condensation.
Phenol and acetone.	Cumene oxidation and cleavage.
C3 products	*C3 process descriptions*
Acetaldehyde	Oxidation of ethylene with air.
Aniline	Nitration and hydrogenation of benzene.
Bisphenol A	Condensation of phenol and acetone.
Dimethyl terephthalate.	Eserification of terephthalic acid.
C4 products	*C4 process descriptions*
Acrylates	Esterification of acrylic acid.
p-Cresol	Sulfonation of toluene.
Methyl methacrylate.	Acetone cyanohydrin process.
Terephthalic acid	Nitric acid process.
Tetraethyl lead	Addition of ethyl chloride to lead amalgam.

§ 414.31 Specialized definitions.

For the purpose of this subpart:

(a) Except as provided below, the general definitions, abbreviations and methods of analysis set forth in part 401 of this Chapter shall apply to this subpart.

§ 414.32 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best practicable control technology currently available.

In establishing the limitations set forth in this section, EPA took into account all information it was able to collect, develop and solicit with respect to factors (such as age and size of plant, raw materials, manufacturing processes, products produced, treatment technology available, energy requirements and costs) which can affect the industry subcategorization and effluent level established. It is, however, possible that data which would affect these limitations have not been available and, as a result, these limitations should be adjusted for certain plants in this industry. An individual discharger or other interested person may submit evidence to the Regional Administrator (or to the State, if the State has the authority to issue NPDES permits) that factors relating to the equipment or facilities involved, the process applied, or other such factors related to such discharger are fundamentally different from the factors considered in the establishment of the guidelines. On the basis of such evidence or other available information, the Regional Administrator (or the State) will make a written finding that such factors are or are not fundamentally different for that facility compared to those specified in the Development Document. If such fundamentally different factors are found to exist, the Regional Administrator or the State shall establish for the discharger effluent limitations in the NPDES permit either more or less stringent than the limitations established herein, to the extent dictated by such fundamentally different factors. Such limitations must be approved by the Administrator of the Environmental Protection Agency. The Administrator may approve or disapprove such limitations, specify other limitations, or initiate proceedings to revise these regulations.

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of acetic acid, acrylic acid, coal tar (distillation), ethylene glycol, terephthalic acid (oxidation of p-xylene), or polymer grade terephthalic acid (purification of terephthalic acid) by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD5	0.28	0.12
TSS	.42	.19
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
BOD5	0.28	0.12
TSS	.42	.19
pH	Within the range 6.0 to 9.0.	

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of acetaldehyde (oxidation of ethylene with oxygen), caprolactam, coal tar (pitch forming), oxo chemicals, or phenol and acetone (cumene process) by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD5	0.55	0.25
TSS	.56	.25
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
BOD5	0.55	0.25
TSS	.56	.25
pH	Within the range 6.0 to 9.0.	

(c) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of acetaldehyde (oxidation of ethylene with air), aniline, bisphenol A, or dimethyl terephthalate by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD5	1.15	0.51
TSS	.15	.068
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
BOD5	1.15	0.51
TSS	.15	.068
pH	Within the range 6.0 to 9.0.	

(d) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of acrylates, p-cresol, methyl methacrylate, terephthalic acid (nitric acid process) or tetraethyl lead by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD5	3.08	1.37
TSS	2.80	1.25
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
BOD5	3.08	1.37
TSS	2.80	1.25
pH	Within the range 6.0 to 9.0.	

(e) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of phenol and acetone, bisphenol A, or p-cresol by a point source subject to the provisions of this subpart after application of the best practicable control technology currently available:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
Phenols	0.045	0.020
	English units (pounds per 1,000 lb of product)	
Phenols	0.045	0.020

§ 414.33 Effluent limitations guidelines representing the degree of effluent reduction attainable by the application of the best available technology economically achievable.

(a) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of acetic acid, acrylic acid, coal tar (distillation), ethylene glycol, terephthalic acid (oxidation of p-xylene), or polymer grade terephthalic acid (purification of terephthalic acid) by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
COD	0.52	0.37
BOD5	.093	.053
TSS	.14	.085
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
COD	0.52	0.37
BOD5	.093	.053
TSS	.14	.085
pH	Within the range 6.0 to 9.0.	

(b) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of acetaldehyde (oxidation of ethylene with oxygen), caprolactam, coal tar (pitch forming), oxo chemicals or phenol and acetone (cumene process) by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
COD	1.75	0.98
BOD5	.12	.068
TSS	.19	.11
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
COD	1.75	0.98
BOD5	.12	.068
TSS	.19	.11
pH	Within the range 6.0 to 9.0.	

(c) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of acetaldehyde (oxidation of ethylene with air), aniline, bisphenol A, or dimethyl terephthalate by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
COD	6.07	4.37
BOD5	.067	.043
TSS	.05	.03
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
COD	6.07	4.37
BOD5	.067	.043
TSS	.05	.03
pH	Within the range 6.0 to 9.0.	

(d) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of acrylates, p-cresol, methyl methacrylate, terephthalic acid (nitric acid process) or tetraethyl lead by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
COD	39.25	28.26
BOD5	.62	.35
TSS	.94	.57
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
COD	39.25	28.26
BOD5	.62	.35
TSS	.94	.57
pH	Within the range 6.0 to 9.0.	

(e) The following limitations establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of phenol and acetone, bisphenol A or p-cresol by a point source subject to the provisions of this subpart after application of the best available technology economically achievable:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
Phenols	0.003	0.017
	English units (pounds per 1,000 lb of product)	
Phenols	0.003	0.017

§ 414.34 [Reserved]

§ 414.35 Standards of performance for new sources.

(a) The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of acetic acid, acrylic acid, coal tar (distillation), ethylene glycol, terephthalic acid (oxidation of p-xylene) or polymer grade terephthalic acid (purification of terephthalic acid) by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD5	0.23	0.10
TSS	.21	.94
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
BOD5	0.23	0.10
TSS	.21	.94
pH	Within the range 6.0 to 9.0.	

(b) The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph which may be discharged from the manufacture of acetaldehyde (oxidation of ethylene with oxygen), caprolactam, coal tar (pitch forming), oxo chemicals or phenol and acetone (cumene process) by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD5	0.45	0.20
TSS	.28	.12
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
BOD5	0.45	0.20
TSS	.28	.12
pH	Within the range 6.0 to 9.0.	

(c) The following standards of performance establish the quantity of quality of pollutants or pollutant properties, controlled by this paragraph which may be discharged from the manufacture of acetaldehyde (oxidation of ethylene with air), aniline, bisphenol A, or dimethyl terephthalate by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD5	0.94	0.42
TSS	.076	.034
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
BOD5	0.94	0.42
TSS	.076	.034
pH	Within the range 6.0 to 9.0.	

(d) The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of acrylates, p-cresol, methyl methacrylate, terephthalic acid (nitric acid process) or tetraethyl lead by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
BOD5	2.56	1.14
TSS	1.40	.63
pH	Within the range 6.0 to 9.0.	
	English units (pounds per 1,000 lb of product)	
BOD5	2.56	1.14
TSS	1.40	.63
pH	Within the range 6.0 to 9.0.	

(e) The following standards of performance establish the quantity or quality of pollutants or pollutant properties, controlled by this paragraph, which may be discharged from the manufacture of phenol and acetone, bisphenol A or p-cresol by a new source subject to the provisions of this subpart:

Effluent characteristic	Effluent limitations: Maximum for any 1 day	Effluent limitations: Average of daily values for 30 consecutive days shall not exceed—
	Metric units (kilograms per 1,000 kg of product)	
Phenols	0.045	0.02
	English units (pounds per 1,000 lb of product)	
Phenols	0.045	0.02

§ 414.36 Pretreatment standards for new sources.

The pretreatment standards under section 307(c) of the Act for a source within the aqueous liquid phase reaction systems subcategory, which is a user of a publicly owned treatment works (and which would be a new source subject to section 306 of the Act, if it were to discharge pollutants to the navigable waters), shall be the standard set forth in Part 128 of this Chapter, except that, for the purpose of this section, § 128.133 of this Chapter shall be amended to read as follows:

In addition to the prohibitions set forth in 40 CFR 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works shall be the standard of performance for new sources specified in 40 CFR 414.35; *provided*, That, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall, except in the case of standards providing for no discharge of pollutants, be correspondingly reduced in stringency for that pollutant.

[FR Doc.74-9354 Filed 4-24-74;8:45 am]

ENVIRONMENTAL PROTECTION AGENCY

[40 CFR Part 414]

ORGANIC CHEMICALS MANUFACTURING POINT SOURCE CATEGORY

Application of Effluent Limitations Guidelines for Existing Sources to Pretreatment Standards for Incompatible Pollutants

Notice is hereby given pursuant to sections 301, 304 and 307(b) of the Federal Water Pollution Control Act, as amended (the Act); 33 U.S.C. 1251, 1311, 1314 and 1317(b); 86 Stat. 816 et seq.; Pub. L. 92–500, that the proposed regulation set forth below concerns the application of effluent limitations guidelines for existing sources to pretreatment standards for incompatible pollutants. The proposal will amend 40 CFR Part 414, Organic Chemicals Manufacturing Point Source Category, establishing for each subcategory therein the extent of application of effluent limitations guidelines to existing sources which discharge to publicly owned treatment works. The regulation is intended to be complementary to the general regulation for pretreatment standards set forth at 40 CFR 128. The general regulation was proposed July 19, 1973 (38 FR 19236), and published in final form on November 8, 1973 (38 FR 30982).

The proposed regulation is also intended to supplement a final regulation being simultaneously promulgated by the Environmental Protection Agency (EPA or Agency) which provides effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources within the nonaqueous processes subcategory, processes with process water contact as steam diluent or absorbent subcategory and aqueous liquid phases reaction systems subcategory of the organic chemicals manufacturing point source category. The latter regulation applies to the portion of a discharge which is directed to the navigable waters. The regulation proposed below applies to users of publicly owned treatment works which fall within the description of the point source category to which the guidelines and standards (40 CFR Part 414) promulgated simultaneously apply. However, the proposed regulation applies to the introduction of incompatible pollutants which are directed into a publicly owned treatment works, rather than to discharges of pollutants to navigable waters.

The general pretreatment standard divides pollutants discharged by users of publicly owned treatment works into two broad categories: "compatible" and "incompatible." Compatible pollutants are generally not subject to pretreatment standards. (See 40 CFR 128.110 (State or local law) and 40 CFR 128.131 (Prohibited wastes) for requirements which may be applicable to compatible pollutants). Incompatible pollutants are subject to pretreatment standards as provided in 40 CFR 128.133, which provides as follows:

> In addition to the prohibitions set forth in § 128.131, the pretreatment standard for incompatible pollutants introduced into a publicly owned treatment works by a major contributing industry not subject to section 307(c) of the Act shall be, for sources within the corresponding industrial or commercial category, that established by a promulgated effluent limitations guidelines defining best practicable control technology currently available pursuant to sections 301(b) and 304(b) of the Act; provided that, if the publicly owned treatment works which receives the pollutants is committed, in its NPDES permit, to remove a specified percentage of any incompatible pollutant, the pretreatment standard applicable to users of such treatment works shall be correspondingly reduced for that pollutant; and provided further that when the effluent limitations guidelines for each industry is promulgated, a separate provision will be proposed concerning the application of such guidelines to pretreatment.

The regulation proposed below is intended to implement that portion of section 128.133, above, requiring that a separate provision be made stating the application to pretreatment standards of effluent limitations guidelines based upon best practicable control technology currently available.

Questions were raised during the public comment period on the proposed general pretreatment standard (40 CFR Part 128) about the propriety of applying a standard based upon best practicable control technology currently available to all plants subject to pretreatment standards. In general, EPA believes the analysis supporting the effluent limitations guidelines is adequate to make a determination regarding those standards to users of publicly owned treatment works. However, to ensure that those standards are appropriate in all cases, EPA now seeks additional comments focusing upon the application of effluent limitations guidelines to users of publicly owned treatment works.

Sections 414.15, 414.25, and 414.35 of the proposed regulation for point sources within the nonaqueous processes subcategory, processes with process wastes contact as steam diluent or absorbent subcategory and aqueous liquid phase reaction systems subcategory (December 17, 1973; 38 FR 34706), contained the proposed pretreatment standard for new sources. The regulation promulgated simultaneously herewith contains §§ 414.16, 414.26, and 414.36 which states the applicability of standards of performance for purposes of pretreatment standard for new sources.

A preliminary Development Document was made available to the public at approximately the time of publication of the notice of proposed rulemaking and the final Development Document entitled "Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the Major Organic Products Segment of the Organic Chemicals Manufacturing Point Source Category" is now being published. The economic analysis report entitled "Economic Analysis of Proposed Effluent Guidelines, Organic Chemicals Industry" (August 1973), was made available at the time of proposal. Copies of the preliminary Development Document and economic analysis report will continue to be maintained for inspection and copying during the comment period at the EPA Information Center, Room 227, West Tower, Waterside Mall, 401 M Street, SW., Washington, D.C. Copies will also be available for inspection at EPA regional offices and at State water pollution control agency offices. Copies of the Development Document may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Copies of the economic analysis report will be available for purchase through the National Technical Information Service, Springfield, Virginia 22151.

On June 14, 1973, the Agency published procedures designed to insure that, when certain major standards, regulations, and guidelines are proposed, an explanation of their basis, purpose and environmental effects is made available to the public. (38 FR 15653) The procedures are applicable to major standards, regulations and guidelines which are proposed on or after December 31, 1973, and which either prescribe national standards of environmental quality or require national emission, effluent or performance standards or limitations.

The Agency determined to implement these procedures in order to insure that the public was provided with background information to assist it in commenting on the merits of a proposed action. In brief, the procedures call for the Agency to make public the information available to it delineating the major environmental effects of a proposed action, to discuss the pertinent nonenvironmental factors affecting the decision, and to explain the viable options available to it and the reasons for the option selected.

The procedures contemplate publication of this information in the FEDERAL REGISTER, where this is practicable. They provide, however, that where such publication is impracticable because of the length of these materials, the material may be made available in an alternate format.

The Development Document referred to above contains information available to the Agency concerning the major environmental effects of the regulation proposed below. The information includes: (1) The identification of pollutants present in waste waters resulting from the manufacture of major organic chemicals products, the characteristics of these pollutants, and the degree of pollutant reduction obtainable through implementation of the proposed standard; and (2) the anticipated effects on other aspects of the environment (including air, subsurface waters, solid waste disposal and land use, and noise) of the treatment technologies available to meet the standard proposed.

The Development Document and the economic analysis report referred to

above also contain information available to the Agency regarding the estimated cost and energy consumption implications of those treatment technologies and the potential effects of those costs on the price and production of major organic chemical products. The two reports exceed, in the aggregate, 100 pages in length and contain a substantial number of charts, diagrams and tables. It is clearly impracticable to publish the material contained in these documents in the FEDERAL REGISTER. To the extent possible, significant aspects of the material have been presented in summary form in the preamble to the proposed regulation containing effluent limitations guidelines, new source performance standards and pretreatment standards for new sources within the major organic products segment of organic chemicals category (38 FR 34706; December 17, 1973). Additional discussion is contained in the analysis of public comments on the proposed regulation and the Agency's response to those comments. This discussion appears in the preamble to the promulgated regulation (40 CFR Part 414) which currently is being published in the rules and regulations section of the FEDERAL REGISTER.

The options available to the Agency in establishing the level of pollutant reduction obtainable through the best practicable control technology currently available, and the reasons for the particular level of reduction selected are discussed in the documents described above. In applying the effluent limitations guidelines to pretreatment standards for the introduction of incompatible pollutants into municipal systems by existing sources in the nonaqueous processes subcategory, processes with process water contact as steam diluent or absorbent subcategory and aqueous liquid phase reaction systems subcategory, the Agency has, essentially, three options. The first is to declare that the guidelines do not apply. The second is to apply the guidelines unchanged. The third is to modify the guidelines to reflect: (1) Differences between direct dischargers and plants utilizing municipal systems which affect the practicability of the latter employing the technology available to achieve the effluent limitations guidelines; or (2) characteristics of the relevant pollutants which require higher levels of reduction (or permit less stringent levels) in order to insure that the pollutants do not interfere with the treatment works or pass through them untreated.

As described in the "Development Document," substantial reductions of principal pollutants BOD5 and TSS are achievable with exemplary end-of-process biological treatment for subcategory groups A, B1, B2, and C1.

Subcategory groups C2, C3, and C4 have substantially higher loadings of the major pollutant, BOD5. Oxygen demand as measured by the COD pollutant parameter is also very high for product-process segment within these subcategory groups. When BOD5 limits are met for these segments, the COD pollutant will also be substantially reduced. Since the BOD5 pollutant parameter controls, no limits for COD are proposed at this time. Therefore, waste waters from these segments may be introduced into publicly owned treatment works except for the cumene process, bisphenol A, and p-cresol manufacturing.

Pretreatment for phenols is applicable to the following product-process segments: phenol and acetone (cumene process), bisphenol A and p-cresol manufacturing since phenols may interfere with publicly owned treatment systems if these systems are not acclimated to accept phenolic waste loads.

Interested persons may participate in this rulemaking by submitting written comments in triplicate to the EPA Information Center, Environmental Protection Agency, Washington, D.C. 20460, Attention: Mr. Philip B. Wisman. Comments on all aspects of the proposed regulations are solicited. In the event comments are in the nature of criticisms as to the adequacy of data which is available, or which may be relied upon by the Agency, comments should identify and, if possible, provide any additional data which may be available and should indicate why such data is essential to the development of the regulations. In the event comments address the approach taken by the Agency in establishing pretreatment standards for existing sources, EPA solicits suggestions as to what alternative approach should be taken and why and how this alternative better satisfies the detailed requirements of sections 301, 304, and 307(b) of the Act.

A copy of all public comments will be available for inspection and copying at the EPA Information Center, Room 227, West Tower, Waterside Mall, 401 M Street SW., Washington, D.C. 20460. The EPA information regulation, 40 CFR 2, provides that a reasonable fee may be charged for copying.

In consideration of the foregoing, it is hereby proposed that 40 CFR 414 be amended to add sections 414.14, 414.24, and 414.34. All comments received on or before May 28, 1974 will be considered.

Dated: April 17, 1974.

JOHN QUARLES,
Acting Administrator.

Part 414 is proposed to be amended as follows:

1. Subpart A is amended by adding § 414.14 as follows:

§ 414.14 Pretreatment standards for existing sources.

For the purpose of pretreatment standards for incompatible pollutants established under § 128.133 of this Chapter, the effluent limitations guidelines set forth in § 414.12 above shall not apply and subject to the provisions of Part 128 of this Chapter concerning pretreatment process waste waters from this subcategory may be introduced into a publicly owned treatment works.

2. Subpart B is amended by adding § 414.24 as follows:

§ 414.24 Pretreatment standards for existing sources.

For the purpose of pretreatment standards for incompatible pollutants established under § 128.133 of this Chapter, the effluent limitations guidelines set forth in § 414.22 shall not apply and, subject to the provisions of Part 128 of this Chapter concerning pretreatment, process waste waters from this subcategory may be introduced into a publicly owned treatment works.

3. Subpart C is amended by adding § 414.34 as follows:

§ 414.34 Pretreatment standards for existing sources.

For the purpose of pretreatment standards for incompatible pollutants established under § 128.133 of this Chapter, the effluent limitations guidelines set forth in § 414.32 above shall apply and, subject to the provisions of Part 128 of this Chapter concerning pretreatment, process waste waters from this subcategory may not be introduced into a publicly owned treatment works except in compliance with such limitations.

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